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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,621	03/08/2001	Jan Gerben Wijnstra	NL000122	8300

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EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,621

Applicant(s)

WIJNSTRA, JAN GERBEN

Examiner

Haresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: ____

DETAILED ACTION

1. Claims 1-7 are presented for examination.

Priority

2. Applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) or (f), is acknowledged.

Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.

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- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected. Some of the informalities are:

- i. Applicant needs to provide disclosure using the above-mentioned sections.
- ii. The "Field of the Invention" sub-section of the "BACKGROUND OF THE INVENTION" does not contain meaningful terms of the claimed invention.
- iii. Unless the invention is created from scratch, applicant needs to provide the prior arts that have led to the invention. Applicant needs to provide all prior art terms used in the claims. In response to this requirement, please provide the title, citation and copy of each publication that is a source used for the description of the prior art in the disclosure. For each publication, please provide a concise explanation of that publication's contribution to the description of the prior art. Appropriate correction is required.
- iv. The section "CROSS-REFERENCE TO RELATED APPLICATIONS" is missing foreign priority application information.
- v. The terms "family of complex systems", "shared family architecture", "component framework", "services", "define roles", "common interface", "plug-in component" are vague. Applicant needs to clearly distinguish software and hardware components.
- vi. Line 10 of page 2 contains term "in de structures", which is incorrect.

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4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "An X-Ray examination apparatus containing a shared software modules and an application to access software module services".

5. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The abstract of the disclosure is objected to because it is not properly understood.

Applicant needs to provide full, clear, concise and exact terms, which one skilled in the art can understand. The terms, "family of complex systems", "shared family architecture", "component

framework”, etc. are vague terms. Also the abstract does not clearly state the goal of the invention. Correction is required. See MPEP § 608.01(b).

Drawings

6. New corrected drawings are required in this application because Figure does not provide clear terms for the modules. The figure needs a figure number. It is not clear whether plug-ins are part of the Service component framework. The figure does not show telecommunications switching systems, diagnostic imaging system, ultrasound transducer, component framework, etc. More figures are needed for clarification. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Information Disclosure Statement

7. An initialed and dated copy of Applicant’s IDS form 1449, Paper No. 5, is attached to the instant Office action.

Claim Objections

8. Claim 4 is objected to because of the following informalities:

The term “to asses available” is incorrect.

9. Claims 3-5 are objected to because of the following informalities:

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The term "the inventory function is arranged" is incorrect.

10. Claims 6 and 7 are objected to because of the following informalities:

The term "in particular" is not allowed.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 1-6 are software per se that is not tangibly embodied on a computer readable medium and therefore lacks a practical application because it alone cannot produce its intended outcome.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
13. The terms "family of complex systems", "shared family architecture", "component framework", "services", "common interface", "plug-in component", "define roles", "roles", etc. in claims 1-7 are relative terms, which renders the claim indefinite.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohad et al. 6,350,239 (Hereinafter Ohad).

16. As per claims 1 and 7, Ohad teaches the following:

a family of complex systems having a shared family architecture and wherein (e.g., A distributed medical diagnostic system is implemented using one or more first computers that execute one or more instances of a first medical diagnostic system software module and one or more second computers that execute one or more instances of a second medical diagnostic system software module. The first and second medical diagnostic system software modules are members of a system software set (including any number of such system software modules) that implements any chosen medical diagnostic system, abstract),

a complex system, in particular an x-ray examination apparatus having software architecture (e.g., The medical diagnostic system is preferably an ultrasound system as described in more detail below. However, as additional examples, the medical diagnostic system may also

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be a Magnetic Resonance Imaging (MRI) system, an X-ray imaging system, or another type of diagnostic system, col. 1, line 65 – col. 2, line 14) and wherein:

a component framework supports participating plug-in components (e.g., The first and second medical diagnostic system software modules are members of a system software set (including any number of such system software modules) that implements any chosen medical diagnostic system, abstract),

individual plug-in components provides one or more services (e.g., With respect to the imaging computer 116, it too is specifically adapted to provide the services offered by the image and video processing software module 160, col. 6, lines 1 – 5),

the component framework defines roles providing one or more common interfaces for services of several plug-in components (e.g., At step 302, the software functions to implement (e.g., those shown in FIG. 2) in a system software set are determined for a given medical diagnostic system. At step 304, the system software set is divided into software modules and a determination is made at step 306 as to a distribution of the software modules to computers. The software modules are then distributed to individual computers preferably optimized for the software modules at step 308. The computers are connected together at step 310 to allow the modules to interact, communicate, and share data. At least one computer, at step 312, is then connected to an electromechanical subsystem 102 of the medical diagnostic system to allow basic control over the medical diagnostic system, col. 6, lines 19-36).

17. As per claims 2-4 and 6, Ohad teaches the following:

the component framework includes an inventory function for assessing available

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services in the participating plug-in components (e.g., The diagnostic system configuration and maintenance (C&M) module 226 is responsible for interfacing with the archiving module 206 to track maintenance history for the diagnostic system. Thus, for example, the C&M module 226 preferably allows a technician to enter the results of routine or non-routine maintenance calls, allow operators to submit maintenance requests, and the like. The C&M module also allows an operator to perform initial setup and configuration operations on the diagnostic system (e.g., the number and type of scanners 108 and the type of interface provided to the communication links 166, col. 5, lines 1-9),

the inventory function is arranged for initializing the services (e.g., The C&M module also allows an operator to perform initial setup and configuration operations on the diagnostic system (e.g., the number and type of scanners 108 and the type of interface provided to the communication links 166, col. 5, lines 1-9),

the inventory function is arranged to asses available services at initialization of tile system or during run-time of the system (e.g., The C&M module also allows an operator to perform initial setup and configuration operations on the diagnostic system (e.g., the number and type of scanners 108 and the type of interface provided to the communication links 166, col. 5, lines 1-9),

the family members are medical diagnostic systems, in particular x-ray examination apparatus (e.g., The medical diagnostic system is preferably an ultrasound system as described in more detail below. However, as additional examples, the medical diagnostic system may also be a Magnetic Resonance Imaging (MRI) system, an X-ray imaging system, or another type of diagnostic system, col. 1, line 65 – col. 2, line 14).

18. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohad.

19. As per claim 5, Ohad teaches an X-ray imaging system and the software modules that provide different available services (e.g., A distributed medical diagnostic system is implemented using one or more first computers that execute one or more instances of a first medical diagnostic system software module and one or more second computers that execute one or more instances of a second medical diagnostic system software module. The first and second medical diagnostic system software modules are members of a system software set (including any number of such system software modules) that implements any chosen medical diagnostic system, abstract),

However Ohad does not specifically mention about the inventory function to maintain a list of the available services. "Official Notice" is taken that both the concept and advantages of providing the list of the available services is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a list of the available services with the teachings of Ohad in order to maintain a list of the available services.

Conclusion

20. Examiner has found numerous arts related to the disclosed subject matter. Examiner also makes a note that the claims 1-7 have been rejected by the international search.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (703) 605-5234. The

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examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached at (703) 305-8498.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Haresh Patel

December 3, 2003.



**JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**